

## CLAIMS

1. A method of communications, comprising:  
transmitting a first signal to a remote location at a first energy level;  
determining a target transmission energy level as a function of a target quality parameter at the remote location;  
computing a second energy level as a function of the target transmission energy level and the first energy level; and  
transmitting a second signal to the remote location at the second energy level.
2. The method of claim 1 wherein the determination of the target transmission energy level is a function of the first and second signals.
3. The method of claim 2 wherein the first and second signals each comprises a plurality of symbols, and wherein the determination of the target transmission energy level is a function of the total number of symbols in the first and second signals.
4. The method of claim 1 wherein the second energy level is further adjusted as a function of expected losses at the remote location related to decoding the first and second signals jointly.
5. The method of claim 1 wherein the second energy level is further adjusted as a function of expected losses at the remote location relating to de-mapping the second signal.
6. The method of claim 1 wherein the first signal comprises a first subpacket from a data packet, and the second signal comprises a second subpacket from the same data packet, and wherein the determination of the target transmission energy level is a function of a coding rate of the combined first and second subpackets.

7. The method of claim 1 wherein the first signal is transmitted at a first coding rate, and the second signal is transmitted at a second coding rate higher than the first coding rate.

8. The method of claim 1 wherein the computation of the second energy level is further a function of feedback from the remote location relating to wireless channel quality.

9. The method of claim 1 wherein the computation of the second energy level is a function of the target transmission energy level and the first energy level adjusted by expected losses at the remote location relating to de-mapping the first signal.

10. The method of claim 9 wherein the computation of the second energy level comprises subtracting the adjusted first energy level from the target transmission energy level.

11. The method of claim 1 wherein the quality parameter comprises an error rate at the remote location.

12. A communications apparatus, comprising:  
a transmitter configured to transmit to a remote location a first signal at a first energy level followed by a second signal at a second energy level; and  
a processor configured to determine a target transmission energy level as a function of a target quality parameter at the remote location, and compute the second energy level as a function of the target transmission energy level and the first energy level.

13. The communications apparatus of claim 12 wherein the processor is further configured to determine the target transmission energy level as a function of the first and second signals.

14. The communications apparatus of claim 13 wherein the first and second signals each comprises a plurality of symbols, and wherein the processor is further

configured to determine the target transmission energy level as a function of the total number of symbols in the first and second signals.

15. The communications apparatus of claim 12 wherein the processor is further configured to adjust the second energy level as a function of expected losses at the remote location related to decoding the first and second signals jointly.

16. The communications apparatus of claim 12 wherein the processor is further configured to adjust the second energy level as a function of expected losses at the remote location relating to de-mapping the second signal.

17. The communications apparatus of claim 12 wherein the first signal comprises a first subpacket from a data packet, and the second signal comprises a second subpacket from the same data packet, and wherein the processor is further configured to determinate the target transmission energy level a function of a coding rate of the combined first and second subpackets.

18. The communications apparatus of claim 12 further comprising a encoder configured to encode the first signal at a first coding rate and the second signal at a second coding rate higher than the first coding rate.

19. The communications apparatus of claim 12 wherein the processor is further configured to compute the second energy level as a function of feedback from the remote location relating to wireless channel quality.

20. The communications apparatus of claim 12 wherein the processor is further configured to compute the second energy level as a function of the target transmission energy level and the first energy level adjusted by expected losses at the remote location relating to de-mapping the first signal.

21. The communications apparatus of claim 20 wherein the processor is further configured to compute the second energy level by subtracting the adjusted first energy level from the target transmission energy level.

22. The communications apparatus of claim 12 wherein the quality parameter comprises an error rate at the remote location.

23. A communications apparatus, comprising:  
means for transmitting to a remote location a first signal at a first energy level followed by a second signal at a second energy level;  
determining means for determining a target transmission energy level as a function of a target quality parameter at the remote location; and  
means for computing the second energy level as a function of the target transmission energy level and the first energy level.

24. The communications apparatus of claim 23 wherein the determination of the target transmission energy level by the determining means is further a function of the first and second signals.

25. The communications apparatus of claim 24 wherein the first and second signals each comprises a plurality of symbols, and wherein the determination of the target transmission energy level by the determining means is further a function of the total number of symbols in the first and second signals.

26. The communications apparatus of claim 23 wherein the first signal comprises a first subpacket from a data packet, and the second signal comprises a second subpacket from the same data packet, and wherein the determination of the target transmission energy level by the determining means is further a function of a coding rate of the combined first and second subpackets.

27. The communications apparatus of claim 23 further comprising means for encoding the first signal at a first coding rate and the second signal at a second coding rate higher than the first coding rate.